

Copy of claims
allowed

Application No. 09/830,945

Filed: 7/21/2001

Applicant: Ignatious

COMPLETE LISTING OF ALL CLAIMS, WITH MARKINGS AND STATUS IDENTIFIERS
(Currently amended claims showing deletions by ~~striking through~~ and additions by underlining)

1 (currently amended): A biodegradable polymer bearing non-polymerizable lactone ring wherein the polymer is a selected ~~from the group consisting of polyester, polyorthoester, polyphosphoester, polycarbonates, polyanhydrides and polyphosphazenes and copolymers and blends thereof.~~ ✓

2 (original): A polymer bearing non-polymerizable lactone ring according to claim 1 wherein the non-polymerizable lactone ring is within the polymer chain or the non-polymerizable lactone ring is bonded to one or both ends of the polymer chain.

3 (canceled)

4 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 2, wherein the polymer is a polyorthoester.

5 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 2, wherein the polymer is polyphosphoester.

6 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 2, wherein the polymer is a polycarbonate.

7 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 2, wherein the polymer is a polyanhydride.

8 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 2, wherein the polymer is a polyphosphazene.

9 (original): A polymer bearing non-polymerizable lactone ring according to claim ~~3~~ 2, wherein the polyester is selected from the group consisting of polymers, copolymers or blends of l-lactide, dl-lactide, d-lactide, lactic acid, ϵ -caprolactone,

hydroxycaproic acid, p-dioxanone, trimethylene carbonate, 1,5-dioxepan-2-one, 1-4 dioxepan-2-one, glycolide, glycolic acid, ethylene glycol, propylene glycol, valerolactone, hydroxyvaleric acid, and butanediol.

10 (original): A polymer bearing non-polymerizable lactone ring according to claim 9, wherein the polyester is selected from the group consisting of 1-lactide, dl-lactide, glycolide, and polyethylene glycol and the non-polymerizable lactone ring is selected from the group consisting of hydroxybutyrolactone, erythryrolactone, isopropylidene, ribonolactone, isocitric acid lactone, mannanolactone, sacharrodilactone and glucarodilactone.

11 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 4, wherein the polyorthoester is obtained from a diketene acetal and a dihydroxy non-polymerizable lactone ring bearing prepolymer.

12 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claims 11 wherein the dihydroxy non-polymerizable lactone ring bearing prepolymer comprises a polyester selected from the group consisting of polymers, copolymers or blends of 1-lactide, dl-lactide, lactic acid, ε-caprolactone, hydroxycaproic acid, p-dioxanone, trimethylene carbonate, 1,5-dioxepan-2-one, 1-4 dioxepan-2-one, glycolide, glycolic acid, ethylene glycol, propylene glycol valerolactone, hydroxyvaleric acid, and butanediol.

13 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 5, wherein the polyphosphoester is obtained from (C₁-C₁₈)alkylphosphodichloridates, cycloalkylphosphodichloridates or arylphosphodichloridates and a dihydroxy non-polymerizable lactone ring bearing polymer.

14 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 13 wherein the dihydroxy non-

polymerizable lactone ring bearing prepolymer contains a polyester selected from the group consisting of polymers, copolymers or blends of L-lactide, DL-lactide, lactic acid, ϵ -caprolactone, hydroxycaproic acid, ρ -dioxanone, trimethylene carbonate, 1,5-dioxepan-2-one, 1,4-dioxepan-2-one, glycolide, glycolic acid, ethylene glycol, propylene glycol valerolactone, hydroxyvaleric acid, and butanediol.

15 (withdrawn): A polymer bearing non-polymerizable lactone ring according to claim 8, wherein the polyphosphazene is obtained from poly(dichloro)phosphazene and amino butyrolactone.

16 (original): A polymer bearing a non-polymerizable lactone ring according to claim 10, wherein the non-polymerizable lactone ring has been ring opened to its corresponding hydroxycarboxylic acid alkali metal salt.

17 (original): A polymer bearing non-polymerizable lactone ring according to claim 16, wherein the hydroxycarboxylic acid alkali metal salt is within the polymer chain.

18 (withdrawn): A complex comprising a polymer bearing non-polymerizable lactone ring according to claim 1, ionically complexed with a therapeutic agent containing at least one cationic group.

19 (withdrawn): A complex containing a polymer bearing non-polymerizable lactone ring according to claim 17, ionically complexed with a therapeutic agent containing at least one cationic group.

20 (withdrawn): A complex according to claim 19, wherein the therapeutic agent is selected from the group consisting of LHRH, somatostatin, bombesin/GRP, calcitonin, bradykinins, galanin, MSH, GRF, amylin, tachykinin, secretin, PTH, CGRP, neuromedin, pTHRP, glucagon, neurotensin, ACTH, PYY, PYY, and TSH, or an analogue or fragment thereof.

21 (withdrawn): A complex according to claim 20, wherein the therapeutic agent is a somatostatin analogue selected from the group consisting of H- β -D-Nal-Cys-Tyr-D-Trp-Lys-Val-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond, N-hydroxyethylpiperazinyl-acetyl-D-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond or N-hydroxyethylpiperazinyl-ethylsulfonyl-Phe-Cys-Tyr-D-Trp-Lys-Abu-Cys-Thr-NH₂, where the two Cys are bonded by a disulfide bond.

22 (withdrawn): A complex according to claim 20, wherein the therapeutic agent is an LHRH analogue of the formula p-Glu-His-Trp-Ser-Tyr-D-Trp-Leu-Arg-Pro-Gly-NH₂.

23 (withdrawn): A sustained release composition comprising a complex according to claim 21 wherein the composition is in the form of microparticles, microspheres or rods.

24 (withdrawn): A sustained release composition comprising a complex according to claim 22 wherein the composition is in the form of microparticles, microspheres or rods.

25 (withdrawn): A pharmaceutical composition comprising a sustained release composition according to claim 23 having an effective amount of the therapeutic agent and a pharmaceutically-acceptable carrier.

26 (withdrawn): A pharmaceutical composition comprising a sustained release composition according to claim 24 having an effective amount of the therapeutic agent and a pharmaceutically-acceptable carrier.

27 (withdrawn): A method of treating or preventing a disease or a condition, which comprises administering a pharmaceutical composition according to claim 25 to a patient in need thereof, wherein said disease or condition is a disease or

condition that can be treated by the therapeutic agent in the pharmaceutical composition.

28 (withdrawn): A method of treating or preventing a disease or a condition, which comprises administering a pharmaceutical composition according to claim 26 to a patient in need thereof, wherein said disease or condition is a disease of condition that can be treated by the therapeutic agent in the pharmaceutical composition.

29 (withdrawn): A method of administering a pharmaceutical composition according to claim 25 to a recipient, wherein said pharmaceutical composition is administered orally, through the nasal passage, through the pulmonary passage or parenterally.

30 (withdrawn): A method of administering a pharmaceutical composition according to claim 26 to a recipient, wherein said pharmaceutical composition is administered orally, through the nasal passage, through the pulmonary passage or parenterally.

--31 (new): A polymer bearing non-polymerizable lactone ring wherein the polymer is a polyester and the lactone ring is a five-membered lactone ring.

32 (new): A polymer bearing non-polymerizable lactone ring wherein the polymer is a polyester and the lactone ring is a six-membered lactone ring.--